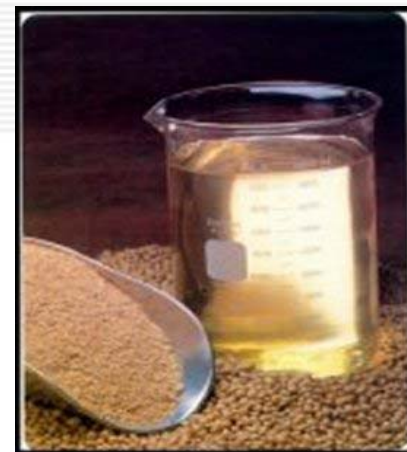


BIODIESEL

THE CLEAR CHOICE



Biodiesel



(Catalyst)

100 pounds + 10 pounds = 100 pounds + 10 pounds
triglyceride Methanol Biodiesel Glycerine
(Vegetable oil
or animal fat)

B100 = Biodiesel
Specified by ASTM D 6751

B20 = 20 % B100 blended with 80% petrodiesel



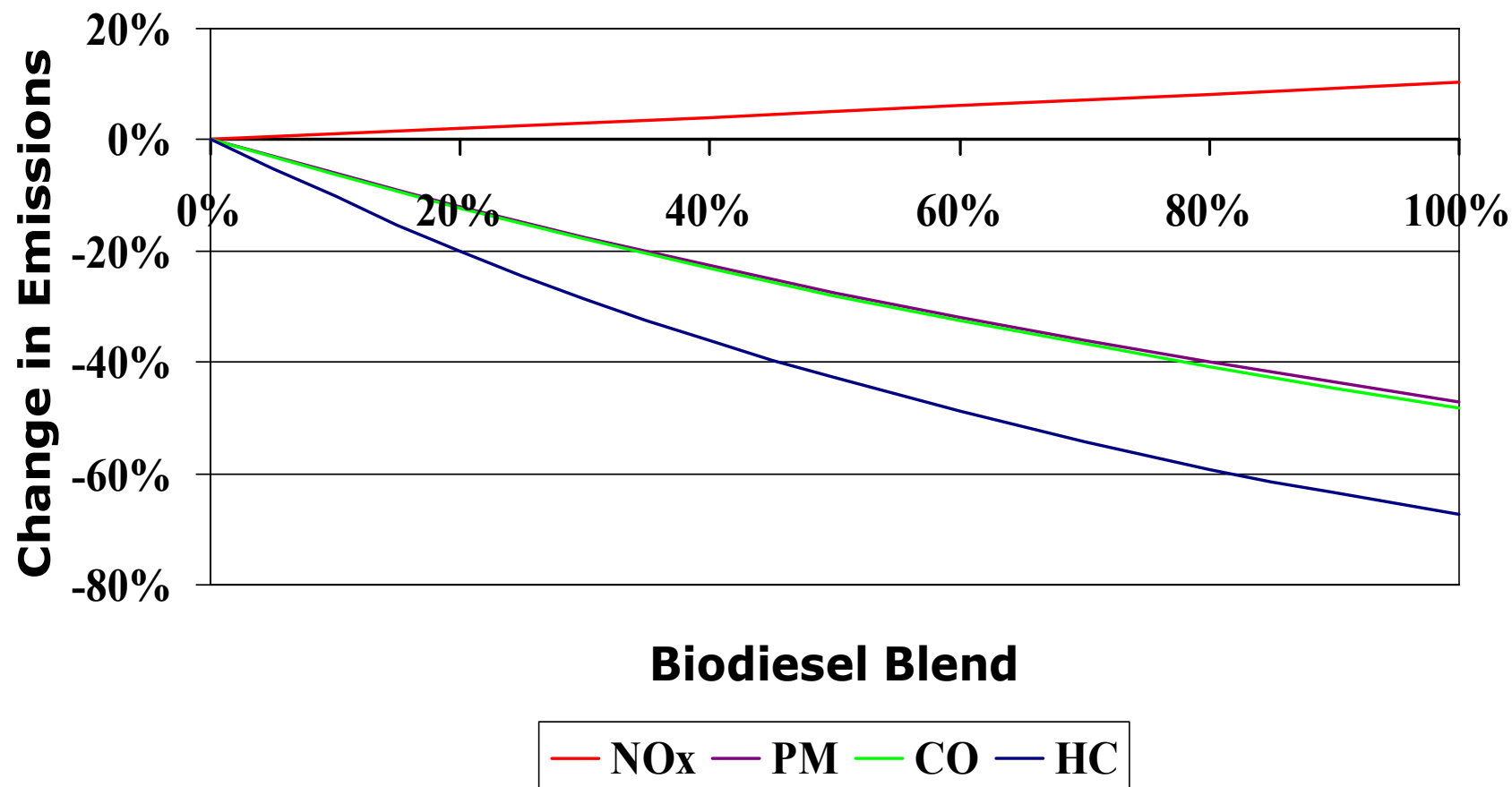
Performance



- High Cetane (>50 vs 42)
- High Lubricity (> 6000g vs 3100g SLBOCLE)
 - ◆ 1% blend biodiesel increases lubricity by up to 65%
- Cold Flow (3-5° F > for soy-based B20)
- BTU Content (B100 < 5-9% less BTU content = 1-2% for B20)
- Flash Point (>300° F vs 117°)
- Safety – Health Effects tests confirm it is 10x less toxic than table salt and biodegrades as fast as sugar.



Comprehensive EPA Study



Cleaner Emissions

Emission Type	B100	B20
Total Unburned Hydrocarbons	-67%	-20%
Carbon Monoxide	-48%	-12%
Particulate Matter	-47%	-12%
Oxides of Nitrogen (NO _x)	+10%	+2%

Emissions data taken from EPA Draft Document, **A Comprehensive Analysis of Biodiesel Impacts on Exhaust Emissions**. Oct. 2002. EPA420-P-02-001

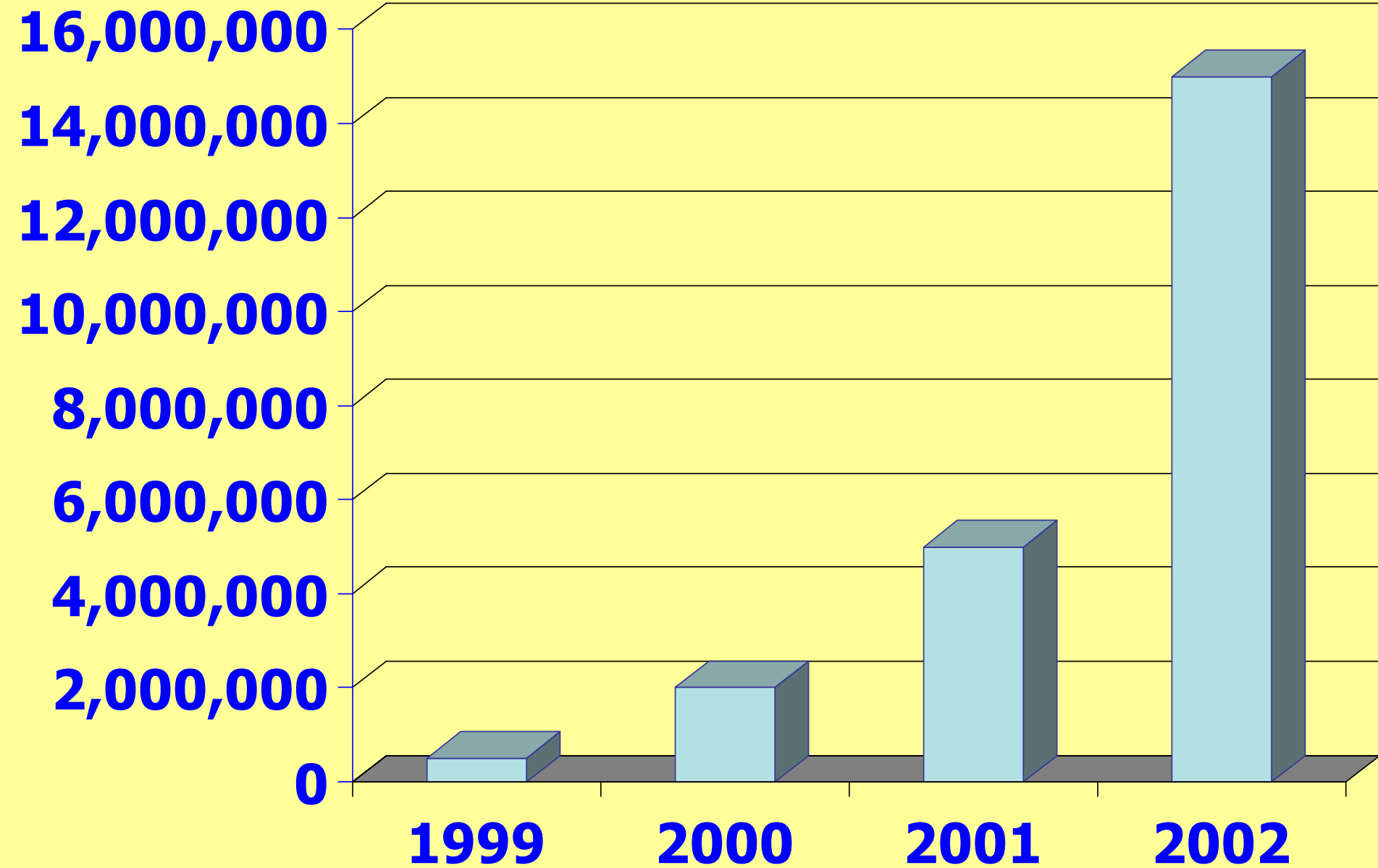


Cleaner Emissions

Emission Type	B100	B20	B2
Total Unburned Hydrocarbons	-67%	-20%	-2.2%
Carbon Monoxide	-48%	-12%	-1.3%
Particulate Matter	-47%	-12%	-1.3%
Oxides of Nitrogen (NO _x)	+10%	+2%	+.2%



B100 Fuel Survey Results



Biodiesel Customers



US Dept of Defense - DLA

National Forest Service

US Department of Energy - Green Parks

US Postal Service

ODOT, IDOT, VDOT, MODOT, NJDOT etc...

Five Seasons Transit – Cedar Rapids

New Jersey Transit

General Services Administration

Omaha Public Power District

Georgia Power

Commonwealth Edison

**Deer Valley & Paradise Valley School Districts,
Phoenix, AZ**

MORE THAN 200 FLEETS



Breckenridge, Colo. *town and ski resort*

- Switched to B20 in 2002
- Cold climate – 10,000 feet above sea level
- Shuttle buses, dump trucks, snowplows
- Held symposium for regional fleet managers
- Several other Colo. ski resorts also use B20



Medford Township *Medford, NJ*

- One of dozens of districts using B20 to address exhaust concerns
- B20 since 1997



- Kids and drivers notice difference in exhaust
 - ◆ Disabled kids are loaded on bus near tailpipe



U.S. Military

- All four branches use biodiesel
 - ◆ Scott AFB, IL
 - ◆ Camp Lejeune, NC
 - ◆ Ft. Leonard Wood, MO
 - ◆ Everett Naval Station, WA

- EPACT and E.O. compliance

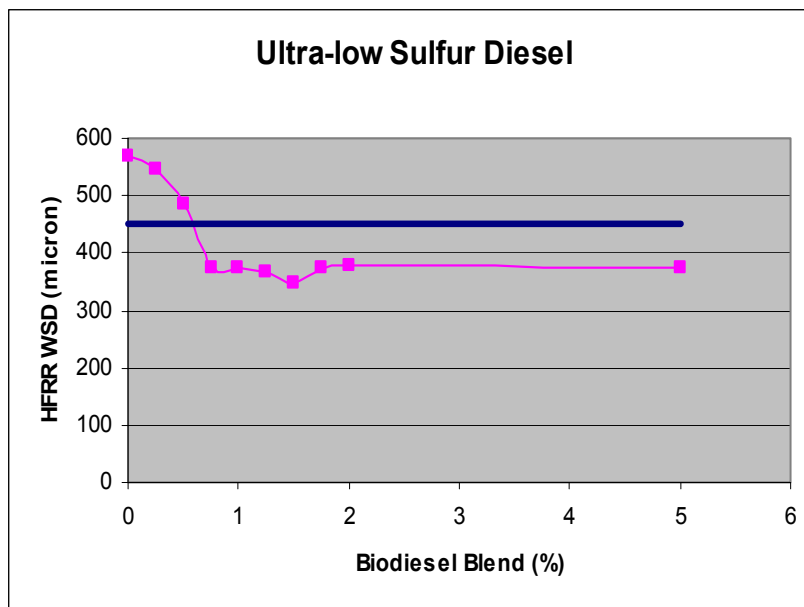


EPA Low Sulfur Rule

- Rule finalized December 2000
 - ◆ 500>15ppm sulfur=lubricity issue
- Successful commercial expansion of biodiesel-based premium diesel

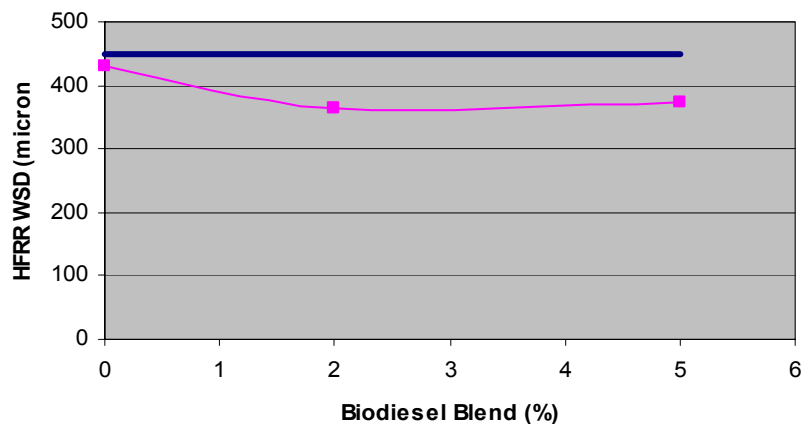


SoyMASTER
SOY ENRICHED PREMIUM DIESEL FUEL

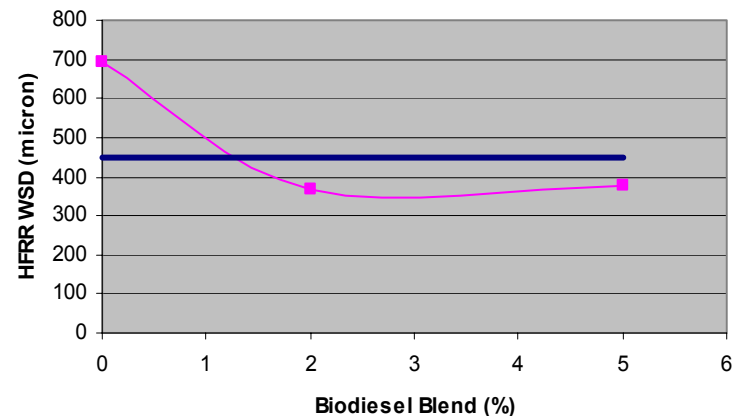


LUBRICITY BENEFITS

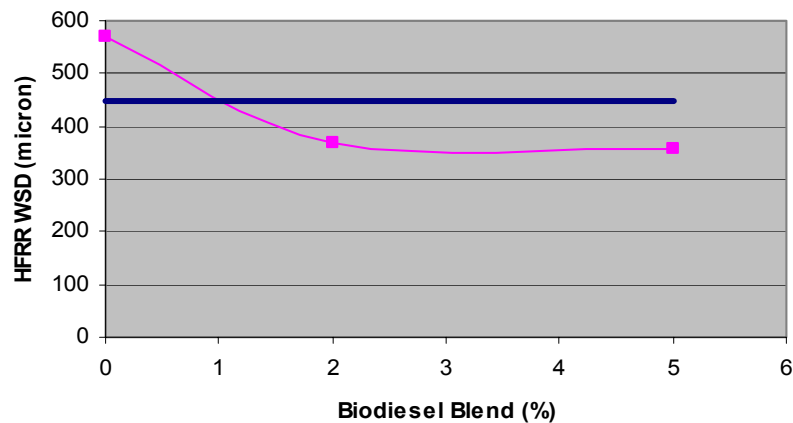
#2 Low Sulfur Diesel



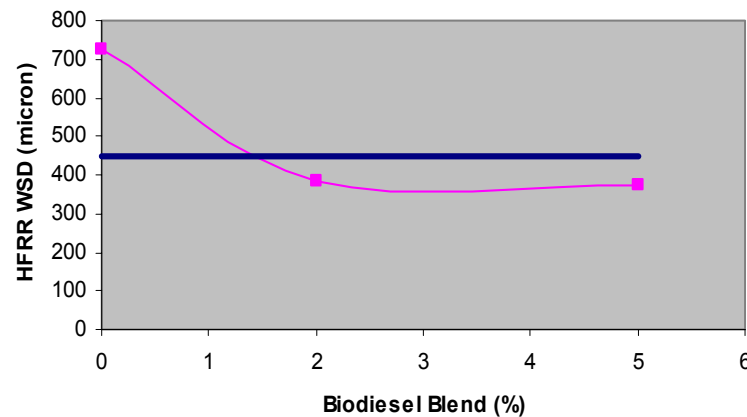
#1 Low Sulfur Diesel



Canadian #2 Winter Diesel



JP-8



Federal Legislation

- EPACT Amendments – Talent amendment removes 50% cap
- Biodiesel Tax incentive – Senate version
- RFS – biodiesel included as compliance option



State Regulatory Activity

Currently more than 70 biodiesel-specific bills pending in 35 states

- AR – 5% income tax credit on distribution equipment, 10 cpg grant for producers.
- KS – all state agencies to use B2
- ND – 10% tax credit for producers and blenders on equipment. State excise tax credit triggered with 8m gal plant in place.
- WA – property tax deferral; tax incentive on distribution and retail equipment, guidance to state agencies to use B20; req for state agencies to use B2 by 2006; biodiesel ULSD B20 pilot project 2 school districts.
- IN – income tax credits (\$1pg for producer; 2cpg for B2 for blender; 1cpg for B2 for retailer) producer and blender credit only for IN-produced biodiesel. 2-yr, capped at \$1m



- CA – biodiesel to be included in state RFS for power generation
- MN – bill passed in 2002
- NBB encourages incentives to blenders



Educational Videos available

- Informational and Technical Resources
- New On-line database
- Password-accessible section
 - ◆ Maintain updated talking points, sales volume estimates, Power point files, etc...
- New NBB Info Technology Division